



"Piznar, Paul M.
(Mike)"

To: Susan Lopez/R6/USEPA/US@EPA

cc:

<Mike.Piznar@Lyondel
l.com>

Subject: Workover procedure: WDW-148

03/11/2004 08:15 AM

Susie,

I inadvertently left off the WDW-148 workover procedure in the e-mail I sent you earlier (you will be receiving a paper copy through the mail).

<<2004 Recompletion Procedure WDW148.PDF>>

Mike Piznar
Environmental Department
Phone: 281-457-8047
Fax: 281-452-8825
Pager: 713-971-8705
E-mail: mike.piznar@lyondell.com



2004 Recompletion Procedure WDW148.PI

Lyondell Channelview Well No. 1 (WDW-148) Proposed Recompletion Procedure

BACKGROUND

The injection capacity at the Lyondell Chemicals, Channelview (Lyondell) facility is limited by the current completion of Well No. 1 (WDW-148). Lyondell has therefore decided to isolate and abandon the current completion interval (Frio A, B, & C) and recomplete the well in the overlying interval (Frio E & F). This interval is permitted for injection, and is currently used for injection by Well No. 2 (WDW-162).

RECOMPLETION PROCEDURE

1. Mobilize and rig up the following equipment over spill containment berms:
 - Ten Frac Tanks;
 - Two vacuum boxes;
 - Two 4-inch diesel centrifugal transfer pumps;
 - Low pressure filter unit;
 - High-pressure triplex pump.
2. Two tanks will be dedicated to injection service, and the remainder will be used for flowback operations. Fill one frac tank with 400 barrels of fresh water and blend in 100 barrels of 10 pound per gallon (ppg) NaCl water (brine) to achieve 500 barrels of 8.7 ppg brine. Fill the other frac tank with 10 ppg brine.
3. Rig up pumping equipment and displace wellbore with adequate volume to triple-rinse wellbore and eliminate surface pressure. Final displacement will be with 8.7 ppg brine.
4. Rig up crane and wireline equipment for gauge ring/junk basket run.
5. Lower gauge ring/junk basket into the well to the top of fill (or junk) inside the 7-inch liner. The top of fill was located at 6,976 feet during the 2003 Mechanical Integrity Test.
6. Dump 21 cubic feet ((calculated volume to fill the 7-inch liner from the top of fill to 6,880 feet (four feet above perforations)) of sand into the well and flush with an adequate volume of water. Suspend operations overnight to allow the sand to settle.
7. Lower the gauge ring/junk basket into the well to confirm the top of the sand/gravel in the well. Dump additional sand if necessary.
8. Rig up wireline cement bailer. Mix cement. Collect sample and set in safe location. Fill bailer with cement. With wireline equipment, place adequate cement above the sand/gravel to fill the inside of the 7-inch liner to a depth of 6,850 feet.
9. Suspend operations for the evening to allow the cement to harden.

10. Rig up and pressure-test wireline lubricator.
11. Pressure test the casing and cement plug to 500 pounds per square inch (psi).
12. Pick up the first perforating string and lower into the well. Prior to final connection, contact appropriate plant personnel for radio silence. Lower perforating string into the well. After perforating string is 100 feet below ground, contact appropriate plant personnel to allow normal radio operations.

Note: Multiple perforating runs will be required to perforate the Frio E & F sand interval from 6,700 to 6,800 feet. The casing will be perforated at 6 shots/foot with 60 degree phasing. During perforating, surface pressure will be applied to reduce the potential of sand influx during perforating.

13. Run gamma ray/casing collar locator (CCL) log strip and correlate tools on depth.
14. Place perforating string with the lowermost shot at 6,800 feet. Pressure the casing to 100 psig and perforate 7-inch liner in the Frio E & F sand interval.
15. Retrieve the spent perforating string from the well.
16. Pick up second perforating string. Prior to final connection contact appropriate plant personnel for radio silence. Lower perforating string into the well. After perforating string is 100 feet below ground, contact appropriate plant personnel to allow normal radio operations.
17. Run gamma ray/CCL log strip to determine exact depth.
18. Place perforating string at appropriate depth. Increase wellhead pressure to 100 psig, or if no pressure can be maintained, inject brine at 0.5 to 2 barrels per minute. Perforate 7-inch liner in the Frio E & F sand interval.
19. Retrieve the spent perforating string from the well.
20. Conduct additional perforating run(s) as necessary to perforate the interval up to 6,700 feet.
21. Rig down wireline equipment.
22. Move in and rig up coiled tubing, nitrogen pumping, and acid pumping equipment.
23. Open wellhead valve(s) and conduct brief injection test to obtain injection performance of well prior to acidizing and backflow operations.
24. Lower the coiled tubing into the wellbore while pumping 4% KCl fluid at 1/4 to 1/2 BPM with the returns line open.
25. Continue lowering coil until top of fill is encountered. Wash down to PBTD and circulate solids from wellbore. While washing, prepare to acidize perforations.
26. Inject acid through the coiled tubing as follows:
 - 1,000 gallons of 15% HCl acid;
 - 1,250 gallons of 12%/3% HCl/HF acid;
 - 1,000 gallons of 15% HCl acid.

NOTE: Acids are to be double-inhibited to protect the coiled tubing from corrosion..

27. Displace acids into the perforations with 4% KCl fluid.
28. Pull coil up to 3,000 feet and begin circulation of nitrogen and 4% KCl fluid.
29. After satisfactory returns are achieved, lowering the coiled tubing to 6,000 feet. Increase the pump rate to achieve a pump pressure of 4,000 psi. (Maximum pump pressure through should not exceed 5,000 psi at any time). Monitor for full returns. Reciprocate coiled tubing slowly from 6,000 feet to 6,200 feet while allowing the well to flow back.³
30. Flow back a sufficient amount of liquids (approximately 2,500 barrels) to recover all of the acid and any emulsions that may have formed between the acids and CVO wastewater.
31. Stop injecting nitrogen and increase fluid pump rate to circulate nitrogen from wellbore. While circulating, lower the coil to plug back total depth (PBTB) (approximately 6,850 feet), and reciprocate coil through perforated interval to adequately wash the perforations.
32. Once nitrogen flow has ceased at surface and all solids have been circulated from the wellbore, engage secondary fluid pump and inject 4% KCl fluid at 3 bpm down the injection tubing.
33. Retrieve the coiled tubing from the wellbore while injecting 4% KCl fluid. Upon reaching surface, isolate wellbore and purge coil with nitrogen. Rig down injector head.
34. Perform injection test. Ensure that flowmeter and pressure measuring equipment are functioning properly.
 - Inject 4% KCl fluid at 50 gallons per minute (gpm) for 30 minutes.
 - Increase injection rate by 50 gpm every 30 minutes until 420 gpm is attained, or limiting injection pressure (900 psig) is reached.

NOTE: If injection pressures are unacceptable, evaluate and implement remedial options as necessary for improving injection performance of well.

35. Rig down all contractor equipment and return the well to the facility.

LYONDELL CHEMICAL COMPANY**Channelview Plant****Plant Well No. 1 (WDW-148)****Well Schematic Schematic****Status: Proposed**

All depths reference RKB

KB = 14.0' above Ground Level

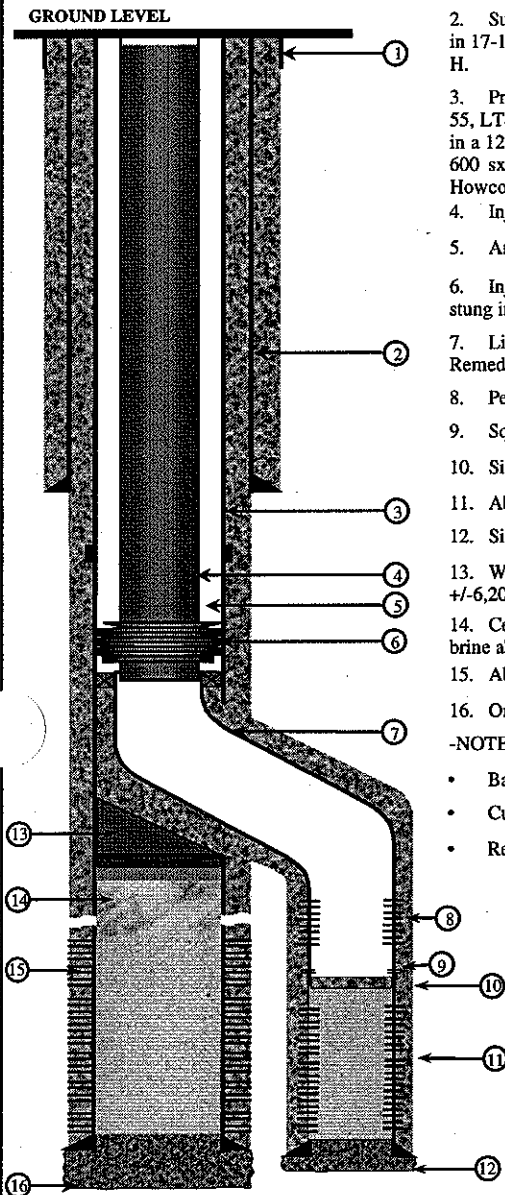
COMPLETION DETAIL


1. Conductor Pipe: 20". Set from surface to 40'.
2. Surface Casing: 13-3/8", 61.0 ppf, K-55, STC. Set from surface to 2,526' in 17-1/2" hole. Cemented to surface w/1,057 sx Howco Lite and 300 sx Class H.
3. Protection Casing: Mixed string as follows: 3,251' of 9-5/8", 36.0 ppf, K-55, LT&C and 3,977' of 9-5/8", 40 ppf., S-80, STC. Set from surface to 7,228' in a 12-1/4" hole. Multi-Stage Cement Tool at 4,746'. Cemented to surface w/ 600 sx Howco Lite and 300 sx 50/50 Pozmix (bottom stage), and 1,560 sx Howco Lite (top stage).
4. Injection Tubing: 5-1/2", 17 ppf, L-80. Set from surface to 5,958'.
5. Annulus Fluid: Filled with non-corrosive packer fluid.
6. Injection Packer: Baker Model F-1 set at 5,958' w/TIW Seal Assembly stung into PBR on top of liner. EPJ Liner Hanger below PBR
7. Liner: 7", L-80, 26 ppf, LTC 8rd set to 7,285', cement w/275 sx Latex. Remedial squeeze w/285 sx 50/50 Pozmix and top squeeze w/140 sx Class H.
8. Perforations: 6700' to 6800' @ 6 shots/ft.
9. Squeeze Perforations in Liner from 6,840' to 6,845'.
10. Sidetrack Plug Back Depth: 6,850'; Cement plug from 6850' to 6880'.
11. Abandoned perforations in sidetrack hole.
12. Sidetrack well drilled to a total depth of 7,300'.
13. Window cut from 6,181' to 6,157', Tail Trip Whipstock set above CIBP @ +/-6,200'.
14. Cement plug from 6,394' to 6,874 feet, borehole filled with 9.5 lb/gal brine above plug.
15. Abandoned perforations in original borehole.
16. Original well drilled to a total depth of 7,228'.

-NOTES-

- Base of USDW: 3,550'.
- Current Completion: 6,700' to 6,800' (Frio E & F Sand)
- Regulatory Intervals:
 - Confining Zone: 4,750' to 5,150' (Anahuac Fm.)
 - Injection Zone: 5,150' to 7,260' (Frio Fm.)
 - Injection Interval: 6,884' to 7,260' (Frio A/B/C Sand)
 - Injection Interval: 6,630' to 6,874' (Frio E&F Sand)
 - Injection Interval: 6,502' to 6,624' (Frio D Sand)

Depths referenced to WDW-148, Induction Log

**Figure 5: WDW-148 Well Completion Schematic**

 Sandia Technologies, LLC		
140 Cypress Station Drive, Suite 130 Houston, TX 77090 Tel: (281) 586-5860 Fax: (281) 586-5870		
Drawn by: KFD	Date: 03/2004	Drawing not to scale

LYONDELL CHANNELVIEW FACILITY

2004 Well Test Procedure for Well No. 1 - Permit No. WDW-148

1.0 Well Information – Well No. 1 (WDW-148)

NOTE: All depths based on completion sketch.

Well Operator:	Lyondell Channelview CVO Unit
KB above ground level:	14'
KB to MSL:	46.7'
Top wellhead conn.:	5-1/2" EUE 8rd
	Flange: 7-1/16" 3000 psi
TD:	7300'
PBTD:	6850' (est.)
Casing:	9-5/8" 36 lb/ft from surface to 3251'
	9-5/8" 40 lb/ft from 3251' to 7228'
Liner:	7" 26 lb/ft (6.276" ID) from 5966' to 7285'
Packer Top:	5958'
Completion:	Cased hole perforated completion
Perforations:	6,700' – 6,800'
Injection tubing:	5-1/2" 17 lb/ft (4.892" ID)
Tubing volume:	138.7 bbl (to 5966')
Volume to top perf:	166.8 bbl
Volume to bottom perf:	170.6 bbl
Annular Volume:	281.5 bbl
Bottomhole Pressure:	N/A
MIT Test Fluid:	CVO wastewater
Injection Sand:	Frio E & F
Previous MIT Test Date:	April 30, 2003
BHP Test Date:	April 30, 2003

Fill tagged at 6986'

2.0 Lower Frio E & F Sand Ambient Pressure Testing Procedure

The ambient pressure test of the Lower Frio E & F Injection Sand will be conducted through Plant Well No. 1 (WDW-148). Since Plant Well No. 2 (WDW-162) is completed into the same formation, an interference test will be conducted between the wells to demonstrate communication between them.

2.1 Bottomhole Pressure Falloff Test – Plant Well No. 1 (WDW-148)

1. The CVO Unit should maintain stable injection into Well No. 1 for a minimum of 24 hours prior to rigging up of contractor equipment. If Well No. 2 (WDW-162) is used for injection, maintain a constant injection rate during the injection and falloff periods.
2. Rig up wireline unit and mast truck. Suitable containment should be placed underneath the truck and around the wellhead to protect against accidental leaks or spills.
3. Rig up lubricator with wireline tools (Casing Collar Locator (CCL), surface readout and memory pressure gauges). Pressure-test lubricator to at least 1,000 psi to check for any leaks.
4. Lower wireline tools to the injection packer and make a CCL run to correlate depths with previous log(s).
5. Spot the surface-recording pressure gauge at 6,700 feet.
6. Continue injecting wastewater at a constant rate for a minimum of one hour, or longer, if necessary, until the bottomhole pressure has stabilized.

NOTES: Wastewater injection rate must be held as constant as possible during this injection period. Take samples of the waste stream every four hours and analyze for waste density and viscosity at a reference temperature.

7. After a sufficient injection period, cease injection abruptly and quickly shut the valve on the injection line closest to the wellhead.
8. Monitor the pressure falloff for a sufficient time period (> 10 hours) and download data set. Transmit data set to Sandia office for preliminary analysis to determine if radial flow in the reservoir has been attained. If data analysis is satisfactory, end falloff test; if more data is needed, extend falloff period until sufficient data has been collected.

2.2 Interference Test – Plant Well Nos. 1 (WDW-148) and 2 (WDW-162)

1. At the conclusion of the pressure falloff test, abruptly increase the injection rate in Well No. 2 by +/- 250 gpm or as high a rate as can be maintained. Maintain injection for approximately 12 hours, or longer, if necessary, to achieve pressure stabilization.

2. Continue monitoring of reservoir pressure through gauges in Well No. 1.
3. After a sufficient injection period in Well No. 2, abruptly reduce injection rate to initial test rate and monitor falloff pressure in Well No. 1.
4. Monitor falloff pressure in Well No. 1 for a sufficient time period to obtain representative reservoir properties.
5. Abruptly increase the injection rate in Well No. 2 by +/- 250 gpm or as high a rate as can be maintained.
6. Monitor reservoir pressure in Well No. 1 to detect pressure pulse from rate increase in Well No. 2. When pressure pulse has arrived, end interference test.
7. Lower the wireline tools in Well No. 1 to the deepest attainable depth, to locate the top of solids fill. Obtain a pressure measurement five feet above the top of solids fill, and obtain additional static pressure measurements every 1,000 feet while retrieving the wireline tools from the wellbore.
8. Rig down wireline unit, clean location, and return well to the CVO unit for service, or proceed with Mechanical Integrity Testing.

3.0 Mechanical Integrity Testing Procedure

3.1 Annulus Pressure Test

1. Connect pressure recording tool to the annulus. Conduct Annulus Pressure Test (APT) by raising annular pressure to 1,000 psi above the tubing pressure for a minimum of 30 minutes.

NOTE: TCEQ regulations allow +/- 5% variability over 30 minute period to demonstrate compliance. If a TCEQ representative is not present to witness the test, hold the pressure for 60 minutes.

2. At the conclusion of the APT, lower annular pressure to the CVO unit's normal differential pressure value and remove pressure recording equipment from the well system.

3.2 Radioactive Tracer Survey

1. Mobilize equipment to well site and place containment beneath wireline mast unit to contain spills.
2. Rig up wireline lubricator to wellhead and pressure-test to 500 psig.

3. Attach RTS tools (casing collar locator, gamma ray detectors and ejector) to the wireline. Lower tools in wellbore to deepest attainable depth (plugback total depth is approximately 6,850 feet). Note any fill. Correlate tools on depth with injection packer and previous log(s).
4. Run a baseline gamma log from deepest attainable depth to 5,750 feet (must be at least 100 feet above the packer). Conduct statistical tool checks at 5,950 feet (8 feet above injection packer) and 6,685 feet (15 feet above the top perforation).
5. With the tool set a minimum of 100 feet above the packer, start injecting fluid 126 gallons per minute (gpm). Release a radioactive (RA) slug.
6. Lower the tool through the slug and log up through the slug. Repeat slug-tracking sequence, following the slug down the tubing and into the injection zone until the slug is dissipated.
7. Repeat Steps 5 and 6.
8. Position lower detector of RTS tool at 6,685 feet (15 feet above the top perforation). Initiate and maintain injection at 252 gpm.
9. Eject a slug of RA material and record on time drive for a minimum of 15 minutes to determine if upward flow around the casing occurs.
10. Repeat Step 9.
11. Cease pumping, and lower the tool to the deepest attainable depth and run a repeat baseline gamma ray log to verify that the radiation level has returned to background.
12. Dump remaining RA material from the tool and pump test fluid to flush the RA material from the wellbore.
13. Stop pumping, retrieve the wireline tools from the well, and rig down wireline unit.
14. Clean location and return well to the CVO unit for service.

LYONDELL CHEMICAL COMPANY

Channelview Plant Plant Well No. 1 (WDW-148) Well Schematic Schematic Status: Proposed

All depths reference RKB

KB = 14.0' above Ground Level

COMPLETION DETAIL

1. Conductor Pipe: 20". Set from surface to 40'.
2. Surface Casing: 13-3/8", 61.0 ppf, K-55, STC. Set from surface to 2,526' in 17-1/2" hole. Cemented to surface w/1,057 sx Howco Lite and 300 sx Class H.
3. Protection Casing: Mixed string as follows: 3,251' of 9-5/8", 36.0 ppf, K-55, LT&C and 3,977' of 9-5/8", 40 ppf., S-80, STC. Set from surface to 7,228' in a 12-1/4" hole. Multi-Stage Cement Tool at 4,746'. Cemented to surface w/ 600 sx Howco Lite and 300 sx 50/50 Pozmix (bottom stage), and 1,560 sx Howco Lite (top stage).
4. Injection Tubing: 5-1/2", 17 ppf, L-80. Set from surface to 5,958'.
5. Annulus Fluid: Filled with non-corrosive packer fluid.
6. Injection Packer: Baker Model F-1 set at 5,958' w/TIW Seal Assembly stung into PBR on top of liner. EPJ Liner Hanger below PBR
7. Liner: 7", L-80, 26 ppf, LTC 8rd set to 7,285', cement w/275 sx Latex. Remedial squeeze w/285 sx 50/50 Pozmix and top squeeze w/140 sx Class H.
8. Perforations: 6700' to 6800' @ 6 shots/ft.
9. Squeeze Perforations in Liner from 6,840' to 6,845'.
10. Sidetrack Plug Back Depth: 6,850'; Cement plug from 6850' to 6880'.
11. Abandoned perforations in sidetrack hole.
12. Sidetrack well drilled to a total depth of 7,300'.
13. Window cut from 6,181' to 6,157', Tail Trip Whipstock set above CIBP @ +/- 6,200'.
14. Cement plug from 6,394' to 6,874 feet, borehole filled with 9.5 lb/gal brine above plug.
15. Abandoned perforations in original borehole.
16. Original well drilled to a total depth of 7,228'.

-NOTES-

- Base of USDW: 3,550'.
 - Current Completion: 6,700' to 6,800' (Frio E & F Sand)
 - Regulatory Intervals:
 - Confining Zone: 4,750' to 5,150' (Anahuac Fm.)
 - Injection Zone: 5,150' to 7,260' (Frio Fm.)
 - Injection Interval: 6,884' to 7,260' (Frio A/B/C Sand)
 - Injection Interval: 6,630' to 6,874' (Frio E&F Sand)
 - Injection Interval: 6,502' to 6,624' (Frio D Sand)
- Depths referenced to WDW-148, Induction Log

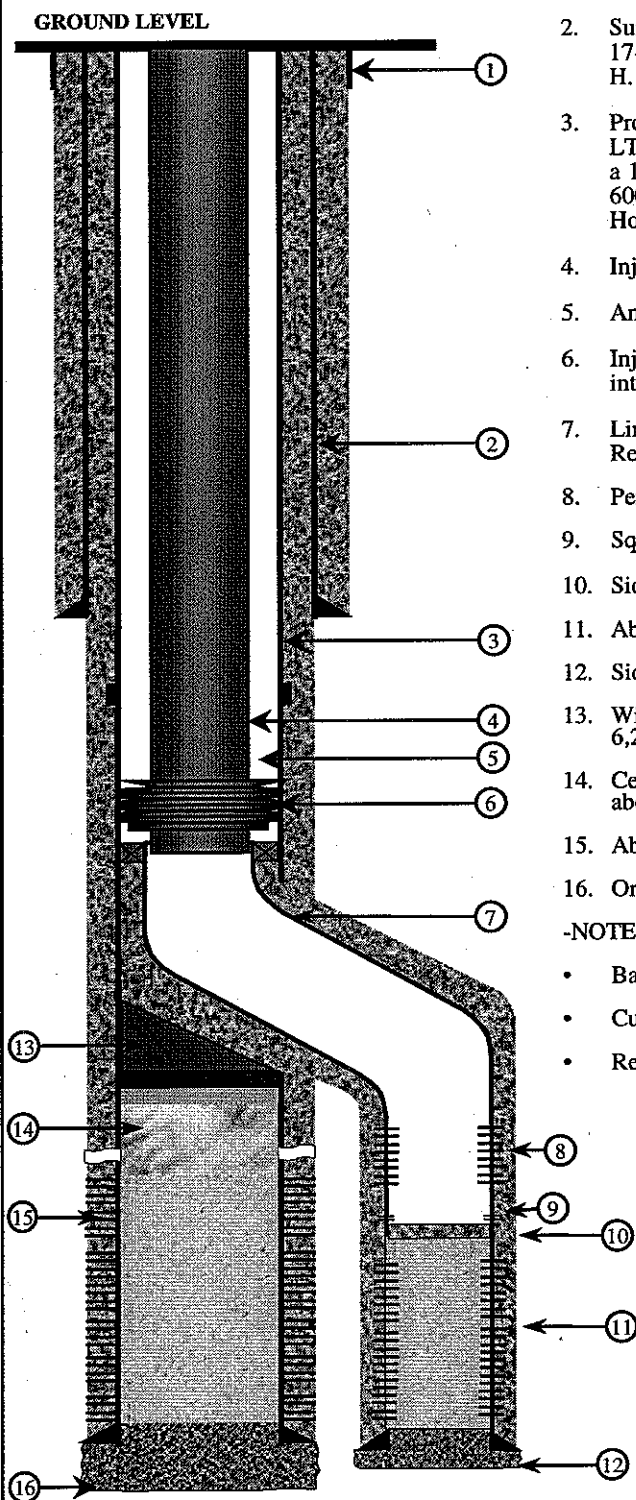


Figure 5: WDW-148 Well Completion Schematic

**Sandia
Technologies, LLC**

140 Cypress Station Drive, Suite 130 Houston, TX 77090
Tel: (281) 586-5860 Fax: (281) 586-5870

Drawn by: KFD

Date: 03/2004

Drawing not to scale

LYONDELL CHANNELVIEW FACILITY

2004 Well Test Procedure for Well No. 2 - Permit No. WDW-162

1.0 Well Information – Well No. 2 (WDW-162)

NOTE: All depths based on completion sketch.

Well Operator:	Lyondell Channelview CVO Unit
KB above ground level:	19'
Top wellhead conn.:	5-1/2" EUE 8rd
	Flange: 7-1/16" 3000 psi
TD:	7242'
PBTD:	6851'
Casing:	9-5/8" 36 lb/ft from surface to 3213'
	9-5/8" 40 lb/ft from 3213' to 7333'
Packer Assembly:	6318' to 6348'
Completion:	Cased hole perforated completion
Perforations:	6,700' – 6,800'
Injection tubing:	5-1/2" 15.5 lb/ft (4.95" ID)
Tubing volume:	151 bbl (to 6348')
Volume to top perf:	177.7 bbl
Volume to bottom perf:	185.3 bbl
Annular Volume:	298.2 bbl
Bottomhole Pressure:	2948.5 psia @ 6750' (April 9, 2003)
MIT Test Fluid:	CVO wastewater
Injection Sand:	Frio E & F
Previous MIT Test Date:	April 9, 2003
	Fill tagged at 6841

2.0 Mechanical Integrity Testing Procedure

2.1 Annulus Pressure Test

1. Connect pressure recording tool to the annulus. Conduct Annulus Pressure Test (APT) by raising annular pressure to 1,000 psi above the tubing pressure for a minimum of 30 minutes.

NOTE: TCEQ regulations allow +/- 5% variability over 30 minute period to demonstrate compliance. If a TCEQ representative is not present to witness the test, hold the pressure for 60 minutes.

2. At the conclusion of the APT, lower annular pressure to the CVO unit's normal differential pressure value and remove pressure recording equipment from the well system.

2.2 Radioactive Tracer Survey

1. Mobilize equipment to well site and place containment beneath wireline mast unit to contain spills.
2. Rig up wireline lubricator to wellhead and pressure-test to 500 psig.
3. Attach RTS tools (casing collar locator, gamma ray detectors and ejector) to the wireline. Lower tools in wellbore to deepest attainable depth (plugback total depth is 6,851 feet). Note any fill. Correlate tools on depth with injection packer and previous log(s).
4. Run a baseline gamma log from deepest attainable depth to 6,100 feet (must be at least 100 feet above the packer). Conduct statistical tool checks at 6,310 feet (8 feet above injection packer) and 6,685 feet (15 feet above the top perforation).
5. With the tool set a minimum of 100 feet above the packer, start injecting fluid 126 gallons per minute (gpm). Release a radioactive (RA) slug.
6. Lower the tool through the slug and log up through the slug. Repeat slug-tracking sequence, following the slug down the tubing and into the injection zone until the slug is dissipated.
7. Repeat Steps 5 and 6.
8. Position lower detector of RTS tool at 6,685 feet (15 feet above the top perforation). Initiate and maintain injection at 252 gpm.
9. Eject a slug of RA material and record on time drive for a minimum of 15 minutes to determine if upward flow around the casing occurs.

10. Repeat Step 9.
11. Cease pumping, and lower the tool to the deepest attainable depth and run a repeat baseline gamma ray log to verify that the radiation level has returned to background.
12. Dump remaining RA material from the tool and pump test fluid to flush the RA material from the wellbore.
13. Stop pumping, retrieve the wireline tools from the well, and rig down wireline unit.
14. Clean location and return well to the CVO unit for service.



"Piznar, Paul M.
(Mike)"

<Mike.Piznar@Lyondell
I.com>

To: Susan Lopez/R6/USEPA/US@EPA

cc:

Subject: RE: Status of WDW-148 recompletion into the Frio E-F

03/10/2004 07:16 AM

Susie,

The attached files represent the proposed workover procedure, the MIT procedures for both wells and a proposed completion schematic for WDW-148. Please call me if you have any questions or need additional information

<<2004 Well Testing Procedure WDW162.PDF>> <<2004 Recompletion Procedure WDW148.PDF>> <<TCEQ Draft Test Schedule for Lyondell Wells 2004.doc>> <<WDW-148 Well Proposed Completion Schematic March2004.ppt>>

Mike Piznar

Environmental Department

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Pager: 713-971-8705

E-mail: mike.piznar@lyondell.com

-----Original Message-----

From: Lopez.Susan@epamail.epa.gov

[SMTP:Lopez.Susan@epamail.epa.gov]

Sent: Monday, March 08, 2004 2:09 PM

To: Piznar, Paul M. (Mike)

Cc: Graves.Brian@epamail.epa.gov;

Hurlbut.William@epamail.epa.gov

Subject: RE: Status of WDW-148 recompletion into the

Frio E-F

Mike,

I would be interested in receiving a copy of the proposed workover procedure for WDW-148 and proposed wellbore schematic to assist in the reissuance review.

Thanks,

Susie Lopez

EPA Region 6 (6WQ-SG)

214-665-7198

Lopez/R6/USEPA/US@EPA

"Piznar, Paul M.
(Mike)"

<Mike.Piznar@Lyondell.com>

To: Susan

cc:

Subject: RE:

Status of WDW-148 recompletion into the Frio E-F

03/08/2004 09:24
AM

Susie,

and
148 well
details
go out
the
April 19
report so

I have requested copies of the corrected figure from Dan Collins will send them to you as soon as I receive them. Regarding the workover, we are meeting this afternoon to finalize some of the and receive the procedure and schedule. The notification should later this week (I will e-mail it to you on the day it goes into mail). We are anticipating starting the workover the week of and we have asked for an expedited turnaround on the workover that we can get it into your hands as quickly as possible for the petition review.

In the meantime let me know if you need anything else.

Thank you,

Mike

Mike Piznar
Environmental Department
Phone: 281-457-8047
Fax: 281-452-8825
Pager: 713-971-8705
E-mail: mike.piznar@lyondell.com

-----Original Message-----

From: Lopez.Susan@epamail.epa.gov
[SMTP:Lopez.Susan@epamail.epa.gov]
Sent: Thursday, March 04, 2004 3:05 PM
To: Piznar, Paul M. (Mike)
Cc: dan.collins@sandiatech.com;
Graves.Brian@epamail.epa.gov; Hurlbut.William@epamail.epa.gov
Subject: Status of WDW-148 recompletion

into the



Frio E-F

Mike,
The December 2003 response to EPA's July 31, 2003,

Notice

of Deficiency
(Plant Well 1) into the Frio E-F. Additionally, EPA did not receive a revised copy of the WDW-162 wellbore schematic, Figure 1-5, with the NOD responses. The December 2002 schematic for WDW-162 illustrates the well is completed into the Frio A/B/C formation. Could you provide the status of this WDW-148 recompletion and an updated schematic for WDW-162?

Susie Lopez
EPA Region 6 (6WQ-SG)
214-665-7198

 
2004 Well Testing Procedure WDW162.PI 2004 Recompletion Procedure WDW148.PI

 
TCEQ Draft Test Schedule for Lyondell Wells 2004. WDW-148 Well Proposed Completion Schematic March200



"Daniel J. Collins"
<dan.collins@sandiate
ch.com>

To: Brian Graves/R6/USEPA/US@EPA, Susan Lopez/R6/USEPA/US@EPA
cc: "Paul M. Piznar (Mike) (E-mail)" <Mike.Piznar@Lyondell.com>
Subject: Lyondell 2000 HWDIR Exemption Petition

01/07/03 02:19 PM

Brian and Susan,

We are shipping revisions to the Lyondell 2000 HWDIR Exemption Petition in response to the March 14, 2002 deficiencies via Fed Ex 2nd Day. We will e-mail the waybill numbers once the labels have been printed. The Certification will come directly from Lyondell.

The 27 Volumes are a replacement to the October 31, 2000 document. Only the Artificial Penetration records from the October 31, 2000 document need to be inserted to the supplemental records data contained in Volumes 22, 23, 24, and 25 as follows:

New Volume 22 should contain Section 3.0, Appendix 3-1 and Appendix 3-2 Artificial Penetrations 1 through 26

New Volume 23 should contain Appendix 3-2 Artificial Penetrations 27 through 54

New Volume 24 should contain Appendix 3-2 Artificial Penetrations DB-1 through DB-45

New Volume 25 should contain Appendix 3-2 Artificial Penetrations DB-46 through DB-151 and Appendix 3-3

No other insertions should be required.

**Lyondell Channelview Plant
Channelview, Texas**

**2004 Injection Well Recompletion and Testing Schedule for
WDW-148 and WDW-162 (*Proposed*)**

April 19 to 25, 2004

Recomplete Well No. 1 (WDW-148) from Lower Frio A/B/C to Lower Frio E & F Sand.

April 26, 2004

Conduct Annulus Pressure Test (APT) on Well No. 1 (WDW-148). Conduct Radioactive Tracer Survey (RTS) on Well No. 1 (WDW-148).

May 2, 2004

Conduct Bottomhole Pressure Falloff Test on Well No. 1 (WDW-148).

May 3, 2004

Conclude Bottomhole Pressure Falloff Test on Well No. 1 (WDW-148). Conduct Interference Test between Well Nos. 1 (WDW-148) and Well No. 2 (WDW-162).

May 4, 2004

Conclude Interference Test. Conduct APT on Well No. 2 (WDW-162). Conduct RTS on Well No. 2 (WDW-162).



2502 Sheldon Road
P.O. Box 30
Channelview, TX 77530-0030
Telephone: 281.862.4000
Fax: 281.862.4540

January 21, 2004

Mr. Brian Graves
U. S. Environmental Protection Agency, (6WQ-SG)
1445 Ross Avenue
Dallas, Texas 75202-2733

CERTIFIED MAIL

7003.0500.0001.0369.1960

RE: 2000 HWDIR Exemption Petition Reissuance
Lyondell Chemical Company
Channelview, TX

Dear Mr. Graves:

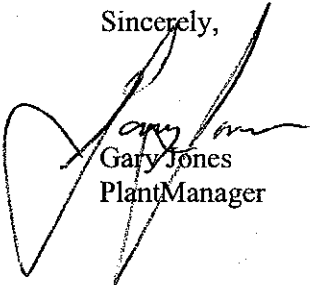
Lyondell Chemical Company (Lyondell) is pleased to submit two copies of inserts and revisions to the 2000 Hazardous Waste Disposal Injection Restrictions (HWDIR) Exemption Petition Reissuance for our Channelview Plant (Revision No. 1, Dated December 2002). These inserts and replacements, identified as Revision Number 2, are in response to your July 31, 2003 Notice of Deficiencies. Responses to each of the identified deficiencies are attached to this letter. Copies of the responses are included in the facing page to Book 1 of the inserts and revisions.

As indicated via telephone call, it is our intent to recompleat Plant Well 1 (WDW-148) into the Frio E&F Sand Injection Interval, prior to EPA reaching a proposed decision on the 2000 HWDIR Exemption Petition Reissuance. This information will be submitted as inserts and replacements to the 2000 HWDIR Exemption Petition Reissuance, once it becomes available.

The inserts and replacements are contained in two books. Directions for inserting and replacing the existing information contained in the 2000 HWDIR Exemption Petition Reissuance (Revision No. 1, Dated December 2002) are contained in each of the books.

We believe that the completeness of the submitted information will allow an expedited and detailed review by you and your staff. Please call Mike Piznar at (281) 457-8047 if you have any questions or if we can provide further information.

Sincerely,


Gary Jones
Plant Manager

